of anastomotic leak following colorectal surgery was 6.4% (8,404 out of 131,689). After propensity score matching by key covariates, Patients with leak (vs. without leak) had higher in-hospital mortality (15.9% (95% CI: 15.2%, 16.7%) vs. 6.2% (95% CI: 5.7%, 6.7%), p<0.001), 30-day readmission rate (19.7% vs. 11.6%, p<0.001), and post-operative infection rate (19.3% vs. 4.5%, p<0.001). The hospitalizations for patients with leak (vs. without leak) were more costly (£9,071±£4,588 vs. £6,420±£2,895, p<0.001) and longer (20±23 vs. 11±13 days, p<0.001). Anastomotic leak resulted in an additional cost of £2651 and an extra LOS of 9 days per patient. **CONCLUSIONS:** Our findings underscore the clinical/economic burden of anastomotic leak after colorectal surgeries in the UK. The presence of anastomotic leak was associated with greater mortality, LOS, and costs, highlighting the importance of providing prompt medical attention to minimize the impact of anastomotic leak.

PCN53

TOTAL TREATMENT COSTS ANALYSIS BETWEEN SUBCUTANEOUS AND INTRAVENOUS BORTEZOMIB UNDER BRAZILIAN PRIVATE HEALTH CARE SYSTEM PERSPECTIVE

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OBJECTIVES: The aim of the analysis was understand the cost differences between the treatment with subcutaneous (SC) and intravenous (IV) bortezomib in patients with Multiple Myeloma treated by the Brazilian Private HealthCare System. **METHODS:** A treatment cost model was developed to estimate and compare the total costs for the treatments with SC and IV. The main inputs used in the model were: medication cost, adverse events cost, average number of cycles, infusion costs and total time of infusion. The model analyzed total costs from the perspective of payers (HMOs) and service provider (Infusion Clinic). Pharmaceutical unit costs were obtained from official government price list applying reimbursement inflators. Infusion time, dose, and number of cycles were obtained from published literature. Deterministic sensitivity analysis (DSA) was performed to assess robustness of the model results. **RESULTS:** The total infusion time per patient was 37.8 minutes for SC and 75.4 minutes for IV. The medication factory price (MFP) was the same for both treatments with a reimbursement inflator of 15% in MFP. The Total Costs considering the HMO perspective were R$80,536.04 for SC and R$81,009.78 for IV per patient. The comparison between the treatments generates a difference of -R$473.74. From the Infusion Clinic perspective the Total Costs were R$67,129.44 for SC and R$67,881.02 for IV per patient. The total reimbursement (difference from income and cost) generated for the service provider was R$12,558.30 for IV and R$12,882.21 for SC per patient. The reimbursement comparison presented a financial return of R$323.91 per patient. In DSA, the SC formulation remained as the option associated with a lower economical impact for the HMO and a better financial return for the infusion clinic in all scenarios. **CONCLUSIONS:** The SC treatment compared with the IV treatment may generate saving for HMO and a rise of reimbursement for service provider.

PCN54

A CANADIAN COST ANALYSIS COMPARING THE USE OF BORTEZOMIB OR LENALIDOMIDE AS MAINTENANCE THERAPIES IN MULTIPLE MYELOMA PATIENTS ELIGIBLE FOR AUTOLOGOUS STEM CELL TRANSPLANT

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OBJECTIVES: Multiple myeloma (MM) is the second most prevalent blood cancer in Canada. In patients who have undergone autologous stem cell transplant (ASCT); post-transplant maintenance therapy (MT) has been associated with substantial prolongation of progression-free survival. Consensus guidelines support the use of lenalidomide and bortezomib as post-transplant MTs, though these agents are supported by differing levels of clinical evidence. We sought to quantify and compare potential cost differences between two MTs, bortezomib and lenalidomide, in MM patients who have undergone ASCT. **METHODS:** The total annual drug cost of the two MT options were calculated. Costs were based on 1.3 mg/m^2 of bortezomib every two weeks, or 10 mg of lenalidomide daily. The cost of administration including oncology nursing time and pharmacist workload was added to the acquisition cost of bortezomib. Pharmacy costs including a 10% markup and dispensing fees were added to the acquisition cost of lenalidomide. Unit and labour costs were obtained from public Canadian sources. Additional analyses were conducted to consider the impact of several variables including the management of adverse events, treatment duration and alternate costing assumptions. **RESULTS:** The total annual costs of treatment per patient were $32,560 and $144,976 for bortezomib and lenalidomide, respectively. The incremental differences were robust to changes in inputs and assumptions (to be presented in poster). **CONCLUSIONS:** In the absence of clear comparative clinical efficacy, the choice of MT may be influenced by patient characteristics as well as patient and physician preference. Taken together, the results of this analysis suggest that when comparing MTs, bortezomib is much less costly than lenalidomide and therefore there are important cost differences that should also be considered.

PCN55

THE HEALTH ECONOMIC IMPACT OF COFFEE CONSUMPTION ON PREVENTION OF CHRONIC DISEASE AND CANCER IN THE UNITED STATES

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OBJECTIVES: Over half of US adults consume coffee (*Coffea arabica*) on a daily basis. Epidemiologic studies suggest coffee may prevent some chronic diseases and cancers. This analysis aims to quantify the potential health economic impact of coffee consumption in the US. **METHODS:** A period life-table analysis was developed to estimate the total direct health care cost savings of coffee consumption associated with prevention of chronic disease and cancer over a one-year time horizon in the US. Age- and sex-specific population statistics, incidence, and mortality rates were used to model the prevalence and costs of chronic disease (Alzheimer's, depression/suicide, diabetes, heart failure, Parkinson's, stroke) and cancer (bladder, breast, colorectal, endometrial, esophageal, leukemia, liver, oral, pancreatic, prostate). Relative risks of chronic diseases and cancers by cups of coffee consumed daily were obtained from meta-analyses of prospective cohort and case-control studies. US daily coffee consumption, duration of disease, and attributable disease costs were obtained from the literature. The model was validated by comparing predicted disease-specific health care costs to estimates from published disease burden analyses. Probabilistic sensitivity analysis (PSA) was conducted. **RESULTS:** The model estimates that US coffee consumption prevents over 50,000 chronic disease and cancer deaths per year and results in an estimated health care savings of $33.4 billion per year (95% CI: $28.7bn, $38.3bn) of which $30.0bn is due to chronic disease and $3.4bn due to cancer. Cost savings were greatest for diabetes ($23.0bn), stroke ($2.7bn), depression ($1.6bn), heart failure ($1.4bn), and Alzheimer's disease ($1.1bn). In the PSA breast cancer and colorectal cancer were the only disease states in which the 95% CI ranged over no cost savings. **CONCLUSIONS:** This analysis suggests a potential public health benefit and health economic savings associated with coffee consumption. Given the limitations of effectiveness data obtained from observational studies, additional research on the health effects of coffee is warranted.

PCN56

EXCESS HEALTH CARE COSTS AMONG ELDERLY BREAST CANCER PATIENTS, BY RECEIPT OF HUMAN EPIDERMAL GROWTH FACTOR RECEPTOR 2-TARGETED THERAPY: AN ANALYSIS OF SEER-MEDICARE DATA

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OBJECTIVES: Few studies have examined excess health care costs among elderly breast cancer (BC) patients by receipt of human epidermal growth factor receptor 2- (HER2-) targeted therapy. **METHODS:** Women aged 65+ with an incident diagnosis of BC (index) and no history of other cancer were identified from 2006-2010 linked Surveillance, Epidemiology, and End Results (SEER) and Medicare data. Women were divided into two cohorts based on receipt of HER2-targeted therapy (trastuzumab or lapatinib) and matched 1:1 to non-cancer comparison cohorts by age, sex, and race. Continuous enrollment from 1 year pre-index (baseline) through disenrollment, death, or the end of the data was required. All-cause costs were evaluated per-patient-per-month (PPPM) overall and by stage. Generalized linear models were constructed to identify factors associated with costs, by stage, controlling for demographics and comorbidity. **RESULTS:** We identified 1,746 BC patients receiving and 35,114 not receiving HER2-targeted therapy. Unadjusted excess total costs (vs. non-cancer patients) were $4,079 PPPM for the HER2-targeted cohort and $990 for the no HER2-targeted cohort (both $P < 0.001$), with larger differences at more advanced stages. Excess cost drivers were outpatient care and physician/provider services (including HER2-targeted therapy acquisition and administration costs). In multivariate analyses, Stage I HER2-targeted BC patients experienced 3.17 times greater total costs than non-cancer patients; while those with Stages II, III, and IV had 3.02, 3.40, and 4.27 times greater costs respectively (all $P < 0.001$). Similar trends with generally smaller magnitudes were observed among patients without HER2-targeted therapy (0.48 [I]; 0.83 [II]; 1.67 [III]; 4.33 [IV]; all $P < 0.001$). Other significant cost predictors included older age, Black or Hispanic race, and baseline Charlson score>2. **CONCLUSIONS:** Women with BC experience higher costs than non-cancer patients, with greater burden among those receiving HER2-targeted therapy. Excess cost drivers were outpatient care and physician/provider services.

PCN57

COSTS ASSOCIATED WITH HEALTH CARE RESOURCE USE IN PATIENTS WITH ADVANCED RENAL CELL CARCINOMA RECEIVING FIRST-LINE TREATMENT WITH PAZOPANIB VERSUS SUNITINIB

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OBJECTIVES: To compare costs associated with health care resource use in patients with advanced renal cell carcinoma (RCC) receiving first-line treatment with pazopanib versus sunitinib. **METHODS:** COMPARZ was a multi-country, randomized, open-label, phase III study which demonstrated non-inferiority of pazopanib compared to sunitinib in adult patients with advanced RCC and no prior systemic therapy. Treatment continued until disease progression, unacceptable toxicity, withdrawal of consent, or death. We estimated total costs by combining non-protocol health care resource use with standardized price weights from a US claims database, and tracked from treatment initiation to study endpoint. Unadjusted and adjusted cost data were compared using univariate parametric (t-test) and non-parametric (Kaplan Meier Sample Average [KMSA]) tests to account for skewness and right-censoring. We estimated 80% power to detect a difference of $8,000 in total costs (two-sided test), assuming $\alpha = 0.05$. Additional analyses were performed to account for non-normal distribution of the data. **RESULTS:** A total of 906 out of 1,110 enrolled subjects (N=454 pazopanib and N=452 sunitinib) reported resource use data. Mean follow-up was 10.6 months. Both arms were balanced at baseline for clinical and demographic characteristics. The population was 73% male, mean age of 61 and good performance status (76% had Karnofsky score 90-100). Rates of emergency visits/hospital days, provider contacts, diagnostics, and procedures were greater for patients receiving sunitinib compared to pazopanib. Mean costs were $12,120 for pazopanib-treated patients and $15,727 for sunitinib-treated patients (p=0.02), a difference of 29.7%. KMSA-derived costs were $21,026 for pazopanib and $29,043 for sunitinib. Cost differences between arms were significant when using Ordinary Least Squares and Generalized Linear Model approaches to adjust for